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ABSTRACT

This publication for educators offers in-depth articles on anthropological research, teaching activities, and reviews of new resources. The publication aims to disseminate recent research in anthropology; to help those teaching anthropology use new materials, approaches, and community resources, as well as integrate anthropology into a variety of curriculum subjects; and to create a national network of anthropologists, archaeologists, teachers, and other professionals interested in disseminating anthropology, particularly in schools. Articles in the publication include: "The Ancient Maya: New Research on 2000 Years of Development" (Jeremy A. Sabloff); "Teacher's Corner: Maya Art and Writing" (Beverly Chiarulli); "Smithsonian Expeditions: A Museum Partnership" (Jane MacLaren Walsh; Tonia Barringer); "Two New Multimedia Tools for Teaching Archaeology" (Shannon P. McPherron); and "'African Voices': Smithsonian Project Brings Africa Alive" (Michael Atwood Mason). (BT)

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ANTHRONOTES
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VOLUME 22 NO. 3 FALL 2001

THE ANCIENT MAYA: NEW RESEARCH ON 2000 YEARS OF DEVELOPMENT

by Jeremy A. Sabloff

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INTRODUCTION

Ancient Maya civilization flourished for more than 2,000 years, lasting from approximately 500 B.C. until the 1540s A.D., the time of the Spanish Conquest. The ancient Maya are renowned for their achievements in art, architecture, writing, science, and urban planning in the varied and challenging environment of the greater Yucatán peninsula and neighboring areas. Today, the ancient Maya civilization's cultural heirs, who number in the millions, continue to thrive in modern-day Mexico and Central America.

In recent years, path-breaking archaeological, epigraphical, and ethnohistorical research is providing significant new insights into the development and accomplishments of the ancient Maya. Scholars now understand that the Maya territory was an integral part of a wider cultural area known as Mesoamerica, which includes the Maya area and most of Mexico to the north. The ancient Maya were not an isolated culture but had numerous economic, political, and ideological interactions with peoples in other parts of Mexico such as the Gulf Coast lowlands, the Valley of Oaxaca, and the Basin of Mexico.

THREE GEOGRAPHIC ZONES

The Maya area covers over 300,000 square kilometers that today includes southern Mexico, Guatemala, Belize, and parts of Honduras and El Salvador. This huge area can be divided into three geographic zones: the lowlands, the highlands, and the Pacific coastal plain and piedmont. Today, a wide variety of environments can be found in these zones, which do not differ significantly from those of more than 2,000 years ago. The Maya successfully exploited these differing and challenging environments but also had to cope with their fragility and the impact of short-term changes such as drought, and natural disasters such as volcanic eruptions. Ancient Maya civilization reached its zenith in the lowlands, especially in the south, but all of the geographic zones played key roles in the growth and flowering of this fascinating, complex Pre-Columbian culture. Through time, the demographic, economic, and political focus of ancient Maya civilization shifted across the landscape of this vast and varied homeland area.

The beginnings of complexity emerged in the Pacific coastal and piedmont zone. This productive zone, which runs along the entire southern margin of the Maya area, has relatively high rainfall and a variety of fertile agricultural regions. The coastal plain is crosscut by a large number of small rivers that flow south from the adjacent highlands. The shoreline and widespread rivers offered numerous trade routes, which the ancient Maya exploited throughout their history. The low foothills of the highlands to the north also supported intensive cultivation of such key crops as cacao.

Shortly after the beginnings of complexity emerged along the coastal plain, both the highlands and the lowlands began to develop rapidly: writing first flourishing in the highlands and large monumental architecture flourishing in the lowlands. The lowlands ultimately emerged as the center of Maya civilization, first in the south and later in the north. The highland, Pacific coastal, and piedmont zones also witnessed important developments throughout the later history of Maya civilization. Although the Spanish conquered the whole area, beginning in the early sixteenth century A.D., the timing and intensity of the Conquest differed significantly within and among the geographic zones.

MAYA GEOGRAPHY

EARLY HISTORY

What became the Maya area was initially occupied soon after the close of the last Ice Age, more than ten thousand years ago. Over the following millennia, small groups of nomadic hunters and gatherers utilized the area's varied animal and plant resources, leaving occasional traces of their short-term occupations in the form of stone tool fragments. The beginnings of the domestication of the crucially important maize plant currently can be traced as early as the middle of the fourth millennium B.C. (3,500 B.C.) with later settled village life based on the productivity and storage of cultivated plants emerging by the second millennium. It is at this time that the roots of ancient Maya civilization emerged.

The chronology of ancient Maya civilization has traditionally been divided into three parts—Preclassic, Classic, and Postclassic—each with its own subdivisions. These chronological periods were originally formulated to mark significant changes in Maya history, especially what was seen as the peak of Maya civilization, namely, the Classic period in the southern lowlands.

Recent research has shown that the hallmarks of the Classic period—writing, monumental art and architecture, the corbeled vault, and polychrome pottery—were all present during Preclassic times. New research also demonstrates that the Postclassic period was *not* a time of Maya decline after the end of the Classic; other zones besides the southern lowlands witnessed significant cultural developments as well. Nevertheless, the traditional periodization of Maya history remains well entrenched in both scholarly and popular usage, and to avoid confusion, I will continue to use it in this article.

However, as I maintained more than a decade ago, it is useful to group these traditional periods into three longer phases without internal subdivisions: *The Early Phase* (2000B.C. - 300 B.C.), *The Middle Phase* (300 B.C. to A.D. 1200), and *The Late Phase* (A.D. 1200 to the 1540s). These period names use more neutral terms than the word "classic," and, I believe, better correspond to the general developmental trends in the ancient Maya world than do the traditional period scheme. In this paper I will refer to both the traditional periods, and the longer phases that I designate in italics.

THE EARLY PHASE (2000 B.C. - 300 B.C.)

This phase includes the Early and Middle Preclassic periods, the time when scholars can trace the beginnings of Maya civilization to settled agricultural villages, which cultivated a number of productive crops, including maize. The earliest villages were in the Pacific coastal and piedmont zone, but the highlands and southern lowlands soon

followed. The rise of complex technological, economic, political, artistic, and religious developments also can be traced to this time period. Thereafter, growing populations throughout the Maya area moved into previously unoccupied zones and the size of individual farming villages expanded.

Between 1000 and 500 B.C., increasing population together with decreasing land available for settlement and agricultural production led to larger population aggregations. This in turn brought with it administrative developments, more intensive forms of agriculture to support the growing populations, and ultimately the emergence of competition and conflict over scarcer lands and resources.

The first highly visible signs of change began to appear by 500 B.C., if not earlier, as several population centers began to increase relatively rapidly in size, and large public buildings burst upon the scene at population centers such as Nakbé, El Mirador, and Tikal in the southern lowlands, and Kaminaljuyú and El Portón in the highlands. Monumental carved stones with depictions of local rulers also first appeared in the highland and coastal zones during this Early Phase. It is evident that rulers were able to mobilize considerable labor forces to construct large public buildings and use monumental sculpture to glorify and consolidate their economic, political, and religious powers.

Moreover, even in these early times, the Maya already were interacting with groups in neighboring areas, such as the Olmecs from the Gulf Coast and the Zapotecs from Oaxaca. These interactions led to trade, as well as the introduction of new ideas and ideologies. For example, the use of hieroglyphic writing and calendrics were invented north of the Maya area in places such as the Valley of Oaxaca. The Maya built on these early innovations to produce their own sophisticated writing system before the end of the Early Phase. Clearly, what archaeologists generally call "chiefdoms" emerged at this time, as many Maya settlements grew in cultural complexity, and the roots of Maya cities and states were planted.

THE MIDDLE PHASE (300 B.C.- A.D. 1200)

This *Middle Phase* includes the Late Preclassic, the Classic, the Terminal Classic, and the Early Postclassic periods in the older classification. It is during this long and critical phase that Maya civilization is widely perceived to have reached its height. Cities attained their largest size; rulers had their greatest powers; and artistic, architectural, and scientific achievements were extraordinary. The locus of widespread cultural developments during the first period of the Middle Phase was in the highlands and Pacific coastal and piedmont zones and most particularly in the southern highlands. However, in the southern lowlands, sites such as El Mirador and Tikal soon rose to prominence.

In recent years, scholars have recognized that many of the hallmarks of "Classic" Maya civilization were present by the Late Preclassic period, if not earlier. In particular, the growth of urban centers, political states, and dynastic rulership can be traced to this time in both the highlands and lowlands. Hieroglyphic inscriptions with calendric and historical information became more widespread in the highland and Pacific coastal and piedmont zones but soon spread into the lowlands. By the middle of Late Preclassic times, the people had also begun to utilize the uniquely Maya calendric system—the Long Count—which was based on a linear calendar that reckoned time

from a start date of 3114 B.C. However, use of Long Count dating did not become common in the lowlands until Classic times. Rulers at El Mirador constructed some of the largest structures that were ever built in the Maya area, consisting of immense stone platforms supporting huge elite buildings.

Toward the end of the Late Preclassic period, the highland and Pacific coastal centers suffered a major decline, as did some of the lowland centers such as El Mirador, which had had close ties to the highlands. The reasons for this decline remain unclear. It is at this time that the political and economic locus of Maya civilization shifted from the highlands to the lowlands. The idea of dynastic rule, which had been present in the highlands, took root in the lowlands and both older sites like Tikal and relatively newer ones like Copán near the southern frontier of the lowlands grew in size and importance under dynastic political leadership. Although some highland sites recovered from their declines at the close of the Late Preclassic period, they lost their pre-eminence to the lowlands.

The Classic Period (A.D. 300-800)

During the Classic period, Maya civilization burgeoned in all geographic zones. Populations at older centers increased, while many new cities were founded as the growing numbers of peoples filled in the landscape. Although there is great scholarly debate about the population figures, by the beginning of the Late Classic period, the overall lowland population alone may have exceeded five million and the larger cities such as Tikal had populations in the many tens of thousands. The arts and architecture thrived; significant achievements in astronomy and mathematics were made; and an intricate ideological system involving numerous deities with multiple personae evolved. Social divisions became exacerbated with a small elite class growing in wealth and power and a large peasant class supplying the food and labor that supported the expanding cities. There is considerable scholarly debate about whether the non-elite class was further divided into a series of subclasses as well.

The Maya area was an important player in the larger Mesoamerican cultural system during the Classic period. Cities such as Tikal, Copán, and Kaminaljuyú had ties to Teotihuacán—the great city in the Basin of Mexico—and elite goods and peoples moved over relatively large distances. Archaeological and epigraphic data indicate that Teotihuacán played an important role in the political and economic development of Maya civilization, although the exact nature of this role remains unclear and controversial.

Recent dramatic advances in the decipherment of Maya hieroglyphic texts now allow scholars to appreciate the very complicated political landscape during Classic times in the lowlands and the waxing and waning of political fortunes of individual cities and ruling dynasties. Important archaeological research at the great urban centers of Tikal and Calakmul, for instance, along with new historical understandings from the texts, have illuminated the rivalries between these two cities. Tikal and then Calakmul and then Tikal again gained the upper hand with either direct or indirect influence over a number of other lowland centers.

In addition, significant ongoing research at Copán has been able to tie together dynastic rule, architectural growth, urban and rural settlement, and the ecology of the Copán Valley in a much clearer picture of the city's rise and fall throughout the Classic period. As similar knowledge is gained at other Maya cities, scholarly understanding of this key time period clearly will be significantly strengthened.

Terminal Classic (A.D. 800-1000) and Early Postclassic (A.D. 100-1200) Periods

Toward the close of the eighth century A.D., after a lengthy flourishing, many of the principal cities in the southern lowlands declined rapidly in population and power. From this time on, the southern lowlands remained relatively lightly populated and drastically less important both politically and economically. The causes of this demise were systemic and multiple with demographic stress, a possible drought, trade

disruptions, and intercity conflicts all implicated in this downturn.

Scholars used to believe that Maya civilization collapsed in the ninth century A.D., but recent research indicates that this was not the case. First, some southern lowland cities, especially those located near water trade routes and rich cacao and cotton growing areas, continued to thrive while other cities were declining. Second, cities in the northern lowlands, especially Chichén Itzá and others like Uxmal, began to thrive just as many southern cities were collapsing. Third, a mercantile, water-oriented Maya group from the Gulf Coast lowlands—the Chontal—who had close economic contacts with many areas of ancient Mesoamerica, began to spread their influence at this time in both the highlands and lowlands. Ultimately they focused their attention on the northern lowlands.

Thus, just as the demographic, political, and economic focus of Maya civilization had shifted from the southern highlands to the southern lowlands in the first part of the *Middle Phase*, so did the focus shift again in the later part of the phase, from the southern to the northern lowlands. Contrary to previous understandings, Maya civilization did not collapse, but continued to prosper, in a different and more restricted area.

This new northern florescence can be seen in such zones as the hilly Puuc region, where densely packed cities like Uxmal, Kabah, Sayil, and Labná thrived at the end of the Classic period and the first half of the Terminal Classic. The indigenous Maya population of the region grew rapidly at this time, exploiting the best agricultural lands in the northern lowlands. The reasons for the rise of the Puuc region sites and their relatively brief heyday have yet to be established. Recent research has shown that a few Puuc sites developed much earlier in the Classic, while my colleagues' and my research at Sayil does not indicate any influx of population from the south at the end of the Classic. So the connections between the southern decline and northern florescence were not demographic but were probably at least in part economic. The causes of decline of the Puuc sites also are unclear. Drought and overpopulation are two of the factors often mentioned in this regard.

However, new research at the great site of Chichén Itzá and elsewhere in the north is beginning to shed new light on this hitherto enigmatic city and its relations with the Puuc region. This research indicates that Chichén Itzá had widespread political (including military conquest) and economic influence throughout the northern lowlands during the Terminal Classic and into the Early Postclassic period. It may have defeated the cities in the Puuc region, causing their decline, and appears to have had no rivals by the early 10th century A.D. Chichén Itzá had tremendous religious importance, and its sacred well, or *cenote*, was a key pilgrimage destination. Its ruler, perhaps Chontal Maya, had close relationships with groups elsewhere in Mesoamerica, especially Central Mexico.

Most scholars now believe that this major political capital was not conquered by the Toltecs of Central Mexico. The similarities between Toltec Tula and Maya Chichén Itzá likely resulted from common cultural ties. Sometime toward the close of the Early Postclassic period, Chichén Itzá declined for reasons that still are not fully understood, and the northern lowlands split into a number of small political entities.

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THE LATE PHASE (A.D. 1200 - 1540s)

The Late Phase witnessed some important cultural shifts in ancient Maya civilization. These included new emphasis on mercantile activities, changing urban designs, significantly diminished investments by the ruling elite in large labor-intensive architectural projects to glorify themselves and their cities, and innovative forms of political control. The latter is best illustrated by the emergence of an extensive political confederacy led by the northern lowland center of Mayapán, which was a walled city with a dense population of about 12,000 people within its boundaries. Long-distance, water-borne trade around the Yucatán peninsula gained greater importance with several trading centers becoming key nodes in the exchange of bulk goods such as cotton, honey, and salt. In the highlands, a series of regional centers that had first emerged toward the end of the *Middle Phase* gained additional power and prominence. These cities were still thriving at the time of the sixteenth-century Spanish Conquest. However, Mayapán had declined by the middle of the fifteenth century and the political scene throughout the lowlands when the Spanish arrived was one of small decentralized polities.

THE SPANISH CONQUEST

The Spanish Conquest of the Maya area began with the early voyages of Grijalva, Hérnández de Córdoba, and Cortés from 1517–1519 and was essentially complete by the 1540s. Parts of the area remained unconquered, and some Maya remained resistant to Spanish and then to Mexican control even up to modern times. The Spanish Conquest destroyed much of the Maya elite and their cultural practices, and it decimated a significant part of Maya population through introduced diseases such as measles and smallpox. Military conquest, disease, and Spanish political control effectively brought an end to Maya civilization after more than two thousand years.

(Note: This article is a shortened and revised version of a heavily illustrated chapter published in *Maya*, edited by Peter Schmidt, Mercedes de la Garza, and Enrique Nalda [see the "For Further Reading" section below for bibliographic details].)

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TEACHER'S CORNER: MAYA ART AND WRITING

by Beverly Chiarulli

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[Note: Some of the concepts in this lesson are based on lessons in *Intrigue of the Past: A Teacher's Activity Guide for Fourth through Seventh Grades*, United States Department of the Interior, Bureau of Land Management (1993). This Teacher's Corner can be used in science, social studies, and art classes and is designed to improve skills in scientific method, synthesizing, and drawing. These lessons will engage students in using strategies such as classification, comparison, and interpretation.]

Vocabulary

Glyph: Shortened version of hieroglyph. In Maya writing, glyphs are more often equivalent to short syllables than single letters.

Pictograph: A sign that pictures a real thing.

Iconograph: A stylized symbol of a "real thing" used in a drawing or painting.

Stela: A free-standing monument, either carved or plain; often paired with "altars" or large round flat stones in Maya sites.

Stucco facade: Wet plaster, which could be carved or molded, used as building decoration. A façade is the front side of a building.

Syllabary: A set of symbols used for syllables. Maya writing is composed of combinations of syllables rather than letters. The syllabary provides a comparison of the symbols to combinations of letters.

INTRODUCTION

Maya art is found on almost everything made and used by the Maya and in every material with which they worked. Recent advances in the decipherment of Maya glyphs have shown that many of the glyphs, paintings, and sculptures provide historical records of Maya kings and their interactions with each other. One of the ways that archaeologists first were able to translate these glyphs was by comparing date glyphs with symbols that seemed to be the names of sites. Other glyphs that are often seen on stela or stone monuments are those that stand for the accession of a king, the performance of a ritual, or the capture of a rival king or lord.

Even before the Maya used glyphs to report their history, they decorated their buildings with stucco facades. Archaeologists can compare the symbols and carvings found on the facades with those later used on monuments with glyphs to interpret or decode what the Maya were trying to say with the facades. In some cases, these interpretations can help us understand why the Maya built the buildings and how they used them.

The Maya also used glyphs along with pictures on their pottery, in large paintings on the walls of buildings, and on small carved objects like pieces of shell or jade. By comparing the pictures and the glyphs and the style of the painting or carving, archaeologists and art historians can sometimes identify individual Maya artists or different versions of the same scene. Through our studies of Maya art and writing, we can better understand how the Maya lived in their ancient cities.

Through the activities below, students will experience how archaeologists use artifacts, art and writing to increase our understanding of Maya civilization.

Exercise 1:

Materials needed:

- A copy of the Maya syllabary for each student. These are available in several books such as Michael Coe's *Breaking the Maya Code* or on the internet. (A useful version is at http://www.halfmoon.org/ syllabary.html, along with directions for using the syllabary to write names.)

- A piece of paper for each student and colored markers, pencils, or paint.

1. Our writing system uses letters representing individual sounds that are combined into words. The Maya writing system is different in that words are divided into syllables. Symbols are used to represent these syllables. In English, we occasionally use a single symbol or "letter" to represent a syllable, like when we use "a" as a word as in "*a* horse." For students to write their names using Maya glyphs, they must first break their names into syllables:

Kate = "ka" + "te"

Some names are more difficult, because you must add an imaginary or silent letter:

Jon = "jo" + "ne"

Some names include sounds that are not found in Maya languages, like "r." You can use the syllabary to find a substitute or you may leave that letter out of your translation, as shown in my name:

Beverly = "be" + "ve" + "li"

2. Have each student break his or name into syllables.

3. Have the students match the syllables from their names to the syllabary.

4. The syllables are then combined into blocks to form word glyphs. Examples of word arrangements are:

ka		jo	ne	be	ve
te					li

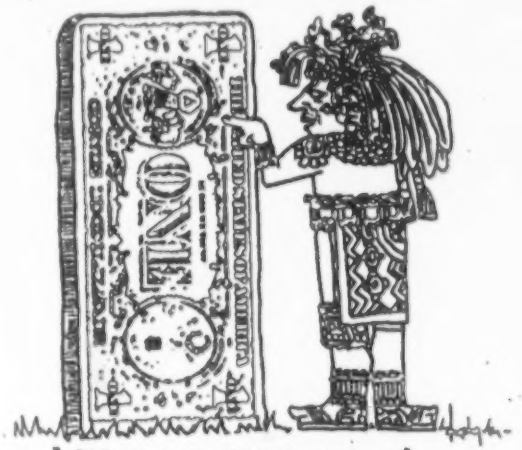
Have the students use glyphs from the syllabary to replace the English syllables in their own name in blocks on a sheet of paper.

Exercise 2:

Materials needed:

- A picture or transparency of a Maya pot or mural showing a painted scene and glyphs. (A good source of pictures of painted Maya pottery is the Foundation for Mesoamerican Studies Maya vase database website—http://www.famsi.org/mayavase.)
- A piece of paper, a small flower pot, or a piece of clay for each student and a marker or paint and paintbrush.
- Colored index cards or pieces of colored paper.

1. Brainstorm examples of symbols that are meaningful to us today. You might start the discussion by providing examples of symbols on



products. As a comparison, students could be asked to consider how symbols have changed through time. Have the students look at a dollar bill, identify the symbols, and then explain the meaning of the symbols. There are probably several symbols that cannot be interpreted, like the "pyramid with the eye."

2. Give each student (or group of students) a piece of paper, or one of the flowerpots. Ask them to create a symbol of their culture or something important in their lives. Have them draw the symbol on the piece of paper or on the flowerpot.

3. Ask groups of students to look at a picture from a Maya pot or painting. Have the students identify glyphs and iconographs in the picture.

4. Have the student groups look at the information that is contained in the Maya picture about the Maya life and environment. Ask them to answer the following questions about the picture:

a. What kinds of clothes are the Maya wearing? What does their style of dress tell you about their environment?

b. Does the picture tell you anything about the natural environment? Do you see any of the plants or animals that might have been important to the Maya?

c. List or draw pictures of five artifacts that you see in the picture. (Artifacts are things that were used or made by people and might include pots shown in the picture, spears, bracelets, necklaces, headdresses, etc.).

Give each group of students a set of five colored index cards or a piece of colored paper cut into five pieces. (Each group should get a different colored set of cards.) Have each group write the name of or draw one of the artifacts on each card. Ask the groups to give as much detail as possible about the artifacts they choose. Collect the Maya pictures and place them on a table at the front of the room. Then have each group pass their set of cards to one of the other groups. Each group should try to match the set of cards to one of the pictures.

As a variation, the cards can continue to be passed on to the other groups, with each group removing one card from the set they pass. A set of five cards works best with five groups. Larger numbers of groups may need more sets of cards.

Exercise 3:
Materials needed:

- A roll of wrapping paper or butcher's paper
- Markers or paint and paintbrush

1. Use the roll of paper to make a large "stela" for the classroom. It should measure at least 18" x 48" or more. Have each of the students transfer his or her name glyph blocks to the "stela." You can add other glyphs to the panel. For example, the website at http://www.halfmoon.org/date.html contains a date calculator that you can use to translate any date into a Maya calendrical date. Leave a blank space in the center of the picture for a drawing.

2. Have the students design or draw a picture for the center of the "stela". As part of the process, have the students brainstorm about the information that might be included, such as the information they saw in the Maya paintings. They might want to include information on the school or on favorite activities. Ask the students to incorporate the symbols they developed into the drawing.

3. Create a translation of the information on the stela. It should include the information in the glyphs as well as the story shown in the picture and symbols.

Exercise 4:
When archaeologists investigate a Maya site, they do so with the permission of the government of the country in which the site is located. They carefully record information on the location and artifacts found in the excavations. They leave the artifacts in the host country, since these belong to the people and government of the country.

Many Maya sites have been "looted" in recent years. "Looting" is a term used to describe unauthorized excavations at a site in which the objective is to recover only valuable artifacts for sale in the United States, Europe, or Japan. Few records are kept of the excavations, and artifacts are scattered among many owners. Sometimes small artifacts like pottery, jewelry, and stone tools are found in these excavations, but other times large carvings or stone stela are cut into pieces by looters and sold.

Using the stela created by the class, cover sections of the stela with irregularly-shaped pieces of construction paper. These represent sections of the stela removed by looters. Or make Xerox copies of sections of the stela that can be given to groups of students to interpret. Have the class discuss how much information is lost when only part of the stela can be studied and why it is important to protect archaeological sites.

(A version of this last exercise involves actually cutting out or defacing parts of the stela. However, students who have put so much effort into creating the stela can find this to be very upsetting, so I recommend that teachers only simulate the destruction of the stela.)

Versions of these lessons were developed for a Workshop for Teachers in Maya Archaeology and Tropical Ecology held in Belize in 1997 and for several Maya Weekends at the University of Pennsylvania Museum.

(Continued on the page 14)

SMITHSONIAN EXPEDITIONS: A Museum Partnership

by Jane MacLaren Walsh & Tonia Barringer

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Smithsonian Expeditions, Exploring Latin America and the Caribbean is a 3,200 square foot exhibition in Miami, Florida, which showcases the Institution's 150-year history of pioneering contributions to the study and preservation of the natural history and cultures of the Americas.

The exhibition at the Miami Museum of Science is designed to invite visitors to trace the steps of scientists through time and space as they traveled to remote regions to explore desolate shores, tropical jungles, archaeological ruins and a Mayan ruler's tomb. Ancient artifacts, ethnographic objects, photographs, field notebooks, and drawings of early scientists and explorers allow visitors to discover how the Smithsonian's National Museum of Natural History amassed one of the largest and most important collections in the world.

The exhibit begins on a mid-19th-century dock somewhere in Latin America, with a display of some of the Smithsonian's earliest collections, ready to be loaded aboard a ship bound for Washington City. Some of the objects on the dock have catalogue numbers in the low hundreds, accessioned when the Institution was only beginning to entertain ideas about collections and exhibitions. The National Museum of Natural History maintains over 120 million objects in its collection with the Anthropology Department caring for 2.5 million artifacts of its own.

The first half of the 19th century was an exciting time for our newly independent country, with American scientists and researchers eagerly competing with Europeans to inventory and document the natural and cultural history of the Americas. The earliest artifacts collected in Latin America come from the first government sponsored, collecting and research voyage—*The United States Exploring Expedition*—that set sail in 1838 and for four years circumnavigated the globe. The naturalists on board collected more than 40 tons of natural and cultural history specimens.

THE FIRST EXPLORERS

The exhibit's *First Explorers* section features four large stone monuments found by Ephraim Squier in 1849 off the coast of Nicaragua. The stones

Monoliths found by Squier in 1849 on Zapatero and other Islands

date between 900 and 1500 A.D., with the largest weighing nearly a ton. Squier hoped they would form the core of a new Smithsonian museum on the Mall dedicated to American archaeology; they eventually did become part of a U.S. National Museum display. Drawings and objects of natural history as well as a variety of gourds collected by Lieutenants Herndon and Gibbon are also on exhibit. The two naval officers traveled the Amazon River and its tributaries in the mid-19th century to explore the possibility of steam travel on the waterway.

TRADING TREASURES

The *Trading Treasures* section describes exchange networks created by the Smithsonian to encourage travelers in Latin America to work with local authorities, scientists, and residents to collect or trade specimens. Spencer Baird, the Smithsonian's second secretary, corresponded with numerous North Americans traveling for diplomatic and economic reasons to involve them in the task of building the national collections.

Many museum objects also were acquired by means of exchange with museums throughout the Americas. A good example of this can be seen in several archaeological objects from Costa Rica, a few of many hundred sent to the Smithsonian by José Zeledón, as part of an exchange program. Zeledón was a Costa Rican ornithologist trained at the Smithsonian, who eventually returned to his homeland to help found a national museum there.

THE SCIENTISTS' CAMPS

Smithsonian researchers spent extended periods in the field, building their own native style housing or renting a local house. *Expeditions* displays a replica

of a native house in Mexico, similar to one that naturalist Edward Nelson stayed in, as seen in a photograph taken by his assistant. The house, which you can walk into, features the work of many pioneer scientists, such as Mary Agnes Chase, who studied grasses throughout South America. She was a pioneer feminist sometimes jailed for political activity, who also was a mentor to many South American women scientists. Alexander Wetmore was the sixth Secretary for the Smithsonian and an important ornithologist, who traveled extensively in Latin America and Panama. His personal collecting kit, which contains, among other things, arsenic for treating the skins of bird specimens, is on display. Lucille and William Mann traveled throughout Latin America trading North American animals for species found in the tropics. William Mann was the director of the National Zoo, and when the reptile pavilion opened in the 1930s, he and his wife traveled as far as Argentina to exchange animals. They traveled on ocean liners with crates of American buffalo, reptiles, birds and other species that required extensive care and feeding on the long voyage.

Another scientist, some of whose collections can be seen in the native house, was William Henry Holmes, artist, geologist and archaeologist, who traveled widely in Mexico. He collected artifacts wherever he went and arranged trades with collectors in Latin America. One of the most interesting pieces in the Holmes case is the Aztec obsidian knife, which may have been used to cut out the heart of sacrificial victims. The Aztecs believed that human hearts were food for their sun god, and that daily sacrifices would ensure that the sun would rise.

Beyond the scientists' field camp are artifacts collected on various islands of the Caribbean, long the crossroads for people and ideas. In prehispanic times the ritual ball game spread from Mexico and Central America throughout the Caribbean and was shared by many cultures including the Taino. Various artifacts from the ball game are on view in the exhibition.

Jesse Fewkes, a Smithsonian archaeologist, made comparative studies of cultures and archaeological sites among the islands, and collected many of these artifacts. Also of note in this region was the scientific collecting voyage around western Cuba and the Colorados reefs on a vessel called the *Thomas Barrera* in 1914. This Smithsonian sponsored expedition was a cooperative venture with Cuban scientist Carlos de la Torre, from the University of Havana, and the results of the study on marine flora of the islands were published in 1916 in The *Cruise of the Thomas Barrera*.

EARLY ARCHAEOLOGY

Standing out at the entrace of the *Early Archaeology* section is a large carved stone portrait of an Olmec individual known as *El Rey*, or the King. It is an exact replica of the original colossal head found at La Venta, an archaeological site in Mexico, by Matthew W. Stirling, another Smithsonian archaeologist. At 9.5 feet high, this one is the largest example of a total of 13 heads found. Some archaeologists think that these heads were portraits of ball players or important rulers.

This replica of "El Rey" was carved from Styrofoam, and though light as a feather, it is quite accurate

A continuous video, filmed by the National Geographic Society in the 1940s, shows Matthew Stirling, his wife Marion, and his crew of workers in the field at various Olmec sites in Mexico. Marion Stirling's narration was added later. Other Olmec objects are on display, such as jade figures, a carved basalt ax, and figurines.

THE PALENQUE TOMB

Toward the close of the exhibition is a re-creation of an archaeological dig where young children can try their hand at finding shark's teeth and pottery fragments. The grand finale of the *Smithsonian Expeditions* exhibit is an interpretation of the tomb of King Pakal discovered at the site of Palenque in the jungles of Chiapas, Mexico. The tomb was found inside the base of the Temple of the Inscriptions, the tallest building at Palenque. To reach the tomb in Palenque requires climbing to the upper platform of the temple and then descending 80 feet down steep stairs to the tomb. Miami Museum of Science visitors can enter directly through the temple piers into the tomb chamber. It

The replica of the tomb of King Pakal within the pyramid called the Temple of Inscriptions

took three years for archaeologists to excavate the stairs leading to the tomb in Palenque.

THE INTERACTIVES

The exhibition concludes with a laboratory section and two interactive virtual exhibits. In the lab, visitors can view marine specimens through microscopes and with computers can go online to visit sites at the Smithsonian Institution. The computer interactive, called *The Expedition Continues*, allows visitors to see what Smithsonian, Miami Museum of Science, and other Miami-based scientists are working on today in the Americas. Another computer interactive invites budding archaeologists to continue exploring ancient American cultures using Smithsonian pre-Columbian objects to illustrate artistic styles and artifact types.

Smithsonian Expeditions is the first large exhibition in the nation to result from a Smithsonian Affiliations partnership. It celebrates more than a century and a half of scientific research and collecting in Latin America and the Caribbean, and exhibits the fruit of our labors to inform the public, at every age level, about the reasons for collecting and the true nature of museum science. The exhibition presents science in an adventurous and entertaining way.

To see the exhibition online, visit www.miamisci.org. Biographies of the many scientists featured in the exhibition are available at www.mnh.si.edu/online_exhibits.html

Jane Walsh, anthropologist in the Smithsonian's Department of Anthropology, and Tonia Barringer, former exhibit director at the Miami Museum, co-curated "Smithsonian Expeditions."

THE SMITHSONIAN AFFILIATION PROGRAM

Since 1996 not-for-profit museums, historical societies, and other cultural organizations have participated in the Smithsonian Affiliations Program. Through this program the Smithsonian is sharing its collections through long term loans and developing relationships with "affiliates" who pay an annual fee and may use a Smithsonian logo and the tag line "in association with the Smithsonian Institution" along with their own name.

The National Affiliations Conference convenes representatives from all the affiliates for two days of dialogue and brainstorming, introducing the affiliates to a myriad of Smithsonian programs they can take advantage of, including co-branding affiliate merchandise and national affiliate memberships to the Smithsonian. Jointly funded internships and fellowships are also offered.

The Miami Museum of Science, described in the article by Walsh and Barringer, is one of the most extensive Smithsonian affiliations. This affiliation demonstrates the way in which the National Museum of Natural History has created ongoing, in-depth linkages with communities across the country, such as in San Antonio, Texas; Anchorage, Alaska; and San Diego, California. In the case of Miami, there is both a major research-based museum exhibition and a research consortium in tropical biology (CETroB), demonstrating the effectiveness of science partnerships in bringing Smithsonian research and public program resources to communities outside Washington.

During 2000-2001, the National Museum of Natural History co-organized with the Miami Museum of Science six teleconferences from Washington, D.C. for 150 university professors and education professionals from six southeastern states. Part of a program called START—Southeastern Student Teachers Are Revitalizing Teaching Through Technology—this Miami Museum of Science initiative was developed with a grant from the U.S. Department of Education.

The affiliations program is an opportunity for sharing Smithsonian resources across the country. The Smithsonian Department of Anthropology has been an active partner in this program.

TWO NEW MULTIMEDIA TOOLS FOR TEACHING ARCHAEOLOGY

by Shannon P. McPherron

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Investigating Olduvai: Archaeology of Human Origins
Created by Jeanne Sept
Published by Indiana University Press
http://www.indiana.edu/~origins/teach/Olduvai.html

Virtual Dig: A Simulated Archaeological Excavation of a Middle Paleolithic Site in France
Created by Harold L. Dibble, Shannon P. McPherron, and Barbara J. Roth
Published by Mayfield Publishing Company
http://www.virtualdig.com

Investigating Olduvai and *Virtual Dig* are two relatively new multimedia CDs specifically geared to classroom use. Both CDs are based on archaeological materials from actual excavations, bringing the excitement of archaeology right into your classroom.

INVESTIGATING OLDUVAI

Investigating Olduvai is based on decades of research into the famous African gorge with its early hominids and Oldowan stone tool industries. In addition to introducing the broad paleoenvironmental and evolutionary picture, this excellent presentation focuses, in particular, on the excavations of the Bed I FLK site, dated to over 1.8 million years old, and the issues of interpretation surrounding it. For instance, the CD explores stone tool making and animal butchery, using a series of graphics and video clips supplemented by text narrative.

Navigating the program is similar to moving through a web site. Words are hyperlinked to definitions, there are forward and backward buttons, and topics are selected from pull-down menus. Students can follow a series of pre-arranged screens on a particular topic or they can use the index to jump directly to a screen. The disc comes with an extensive series of short essay questions and worksheet exercises tied to the material presented on the CD. The questions and exercises require students to work through the CD and gather the necessary information to reach a conclusion. The emphasis is clearly on the investigative and scientific process rather than on obtaining a particular "right" or "wrong" answer. This approach follows naturally from the use of real archaeological data with all their ambiguities and limitations.

VIRTUAL DIG

Virtual Dig is based on recent excavations of Combe-Capelle Bas, a Middle Paleolithic Mousterian site in the classic region of southwest France. The CD includes most of the data recovered from this site, including all the locations of all recorded artifacts and the stone tool analysis for each piece. *Virtual Dig* allows students to re-excavate the site using their own research design and excavation methods and then to analyze the stone tools recovered from their excavations. Through this process, students learn archaeological methodology with all its challenges, including deciding how to feed the crew, where to place the units, what dig tools to use, how many buckets will be screened, and how to interpret a collection of stone tools.

Virtual Dig comes with a 150 page workbook essential to using the program. The workbook introduces topics related to archaeological method and theory and then directs students to the program in a series of exercises that put the principles into practice. After learning about sampling strategies, for example, students design an excavation strategy that could be used to determine the boundaries of the site. After

learning some of the basic kinds of measurements archaeologists make on stone tools, students are given a chance to take actual measurements by clicking on images of stone tools. One of the more creative sections of the program lets students knap and then retouch flakes from a virtual core. They control the shape of the core and where it is struck and get immediate feedback on the resulting flake. Like *Investigating Olduvai*, *Virtual Dig* emphasizes the archaeological process over the achievement of particular results and very much requires students to think through what they are doing at each step rather than simply pushing buttons to get results.

Both CDs have a place in the archeology curriculum. Beyond their obvious application to Paleolithic and hominid origins courses, the CDs work well in introductory world prehistory courses. *Virtual Dig* is particularly well suited to archaeological methods courses and can also be used in courses focusing on grant and proposal writing or stone tool analysis courses. Likewise, *Investigating Olduvai* can be used to teach method and theory and might make an interesting case study for a class on faunal analysis. Both are suitable for both upper high school or undergraduate students.

Virtual Dig requires a PC with a Pentium processor, CD-ROM drive, Windows 95/98, 16 megabytes of RAM, and minimally 800x600 32k color resolution. *Investigating Olduvai* requires at least an Intel 486 PC, CD-ROM, Windows 3.1/95/98, 16 megabytes of RAM, and 640x480 265k color resolution or a 68040 (including Power Mac) Macintosh with a CD-ROM drive, System 7.1, 640x480 256 color resolution, and 12 megabytes of RAM.

Shannon P. McPherron is visiting assistant professor of Anthropology at the University of North Carolina, Greensboro.

(Teacher's Corner, continued from page 9)

FOR FURTHER READING

Coe, Michael. 1993. *Breaking the Maya Code.* Thames & Hudson.

Coe, Michael D. and Justin Kerr. 1998. *The Art of the Maya Scribe.* Harry N Abrams.

Harris, John F., Stephen K. Stearns. 1997. *Understanding Maya Inscriptions: A Hieroglyph Handbook.* Univ. of Pennsylvania Press.

Reents-Budet, Dorrie, Linda Schele, and Michael P. Fezzatesta. 1993. *Painting the Maya Universe: Royal Ceramics of the Classic Period.* Duke Univ. Press.

A useful source about the looting of Maya sites is found in the reports of the Foundation for Mesoamerican Studies. The report is *Surviving in the Rainforest: The Realities of Looting in the Rural Villages of El Peten, Guatemala* by Sofia Paredes Maury. It is at: http://www.famsi.org/reports/paredesmaury/paredesmaury.htm

Beverly Chiarulli is an Assistant Professor and Director of Archaeological Services at Indiana University of Pennsylvania and Chair of the Society for American Archaeology Public Education Committee.

Dear Readers,

For more than 20 years, *AnthroNotes* has been produced and mailed free of charge to thousands of readers each year. To cut costs, in 1998 we reduced the number of annual issues from three to two. Due to funding cuts and administrative reorganization, we again are experiencing pressures. Unfortunately, this situation has impacted the timing and the quality of printing production (in our last issue, in particular). We intend to do everything possible to continue *AnthroNotes*.

The Editors

"AFRICAN VOICES"

Smithsonian Project Brings Africa Alive

by Michael Atwood Mason

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Through the centuries, Africans have developed cities and empires, philosophies and religions, technology and trade. Africa's influence today reaches virtually every country and every culture. Humanity began in Africa, and today African voices speak from every corner of the earth. We are fortunate that some of those voices speak through the Smithsonian's *African Voices* Project.

The year 1999 inaugurated the National Museum of Natural History's much anticipated *African Voices* exhibition. After six years of work, the Museum kept its promise to open a hall developed with community input and state of the art museum practices. Key to this effort was a unique collaboration between curators and museum professionals, on the one hand, and an international group of specialists from a wide spectrum of institutions, on the other hand. The new permanent exhibition with its outreach components touching students and teachers throughout the United States expresses a broad consensus on how to represent Africa and the African Diaspora. Through the *African Voices* Project, African voices, original research, and community collaboration united to create a unique and powerful portrait of Africa.

The *African Voices* title reflects a fundamental shift: rather than simply telling the public about Africa, the exhibition and its outreach components literally resound with the words, songs, poems, and proverbs of African people—contemporary and historical. We meet African people and hear their interpretations of their varied histories and cultures. At the same time, the museum exhibition features more than 400 objects, most of which now belong to the Museum's collections, but many of which were collected or commissioned for the exhibition. Objects join with African voices to tell the story of Africa's long and dynamic history as well as its contemporary relevance and vitality. Case studies also present Africa's diversity and global impact. A wide variety of techniques delivers these themes to our audience, primarily families and especially African and African-American families.

A PROCESS OF INCLUSION

In 1993, the Museum organized a series of planning meetings for the new hall of African history and cultures and invited Africanists, African Diasporan scholars, educators, and museum professionals from local, national, and international institutions to bring their ideas to the table. An intense and lively discussion ensued. Panelists argued that African history had to be central to the exhibition, a history reflecting the fact that African societies were never self-contained enclaves frozen in time or cut off from wider regional or global systems of knowledge and economy. Participants underscored the critical need for the Museum to create an exhibition that would begin to counterbalance the widespread public perceptions of contemporary Africa as a continent of "passive victims," helplessly plagued by famine, war, poverty, and epidemics.

The panel recommended that the Museum create not only a new permanent exhibition of African history and cultures, but a more comprehensive *African Voices* Project that would include changing exhibitions, a resource and study center, a web site, and broad outreach through public programming including a traveling exhibit. Both the Museum and the panelists agreed that the new permanent exhibition and the larger *African Voices* Project must be developed with the active participation of a broad range of Africans and people of African descent in order that it continue to meet the local, national, and international audiences' cultural and educational needs.

IDEALS INTO REALITY

The first priority of the *African Voices* Project was to realize a new exhibition at the National Museum of Natural History that would communicate the following messages to visitors:

- Africa has a long, rich history.
- Africa today is a dynamic and vital place.
- Africa has always been connected to the rest of the world.

As the project team developed the exhibition, we sought to surprise visitors about Africa and to show Africans as the primary actors in their own lives.

The process ensured the development of a consensus on our representation of Africa and the Diaspora. With exhibition designers, we planned a physical layout that would address our goals. The design of the hall revolves around a conceptually and physically central history pathway of ten key moments in African history, beginning with the emergence of human life in Africa and ending with a moment about contemporary challenges in Africa. Off the history pathway, thematic galleries explore topical issues in African culture that have been and promise to remain important in African life.

We had a clear sense of what we wanted to communicate to the public, but the challenge remained: How to tell the story of an entire continent in a 6,500 square–foot hall? We repeatedly ran up against the physical limitations of the space

and the endurance of the family visitors we had targeted as our primary audience. In the end, we chose to illustrate key concerns with case studies, but the brevity of exhibition texts created real constraints. As happens in many exhibitions, only key ideas could remain in the script, while another set of interpretive ideas remained present but not fully articulated in the exhibition. There were far more stories than we could tell in great depth, and many of the details in the end dropped out of the labels. However, the main messages of the exhibition and the more specific set of interpretive ideas formed an essential part of the conversations during the exhibition development process and informed many of the team's choices for the final script.

The remainder of this article explores the main ideas of each gallery in *African Voices* but also presents this interpretive frame that is only sometimes described in the exhibition text. This article thus brings the content of the exhibition to readers who might not be able to travel to the National Museum of Natural History, and it also elucidates certain interrelationships between stories within the exhibition. In addition, web sites and public programming also bring the exhibition experience to those living far from Washington, D.C.

TWO ORIENTATION ENTRANCES

Visitors enter the hall from two places, with each entrance creating an Orientation section. These orientation areas introduce visitors to the main messages of the exhibition and the physical layout of the hall. Large maps and wall panels stress Africa's diversity. In both Orientations, a large video wall presents a program that has three sections, each stressing the key messages of Africa's diversity, creativity, and global influence. The videos' quick pace communicates the continent's vitality. "Traditional" music fades into contemporary Afro-Pop. Factory workers smile and women with painted faces move to the rhythm. Africans narrate the videos with short statements in the first person.

HISTORY PATHWAY

The two orientations are connected by a long history pathway, titled "A Walk Through Time." This pathway runs down the "spine" of the hall. The ten moments along the pathway trace Africans developing cities and empires, philosophies and religions, and technology and trade through time. Although this open design makes it difficult to make explicit comparisons between the moments, there are important juxtapositions. For example, the second moment focuses on the development of economic, social, and cultural exchange along the Nile from 3100 B.C. to A.D. 350 including ancient Nubia and Egypt. The third moment explores the emergence of a similar area along the Niger River in West Africa from 200 B.C. to A.D. 1400. Both these moments were characterized by river-based exchange, dynamic economics, the development of specialized labor and new knowledge, and the production of stunning works of art.

Several moments overlap between 1800 and 1900. The "Money Drives the Slave Trade" moment examines the causes and effects of the Atlantic slave trade between 1500 and the 1860s. "Trade Transforms Africa" presents the dramatic changes in trade in central Africa from the early 1800s through the early 1900s. Both these stories demonstrate Africa's connections to the rest of the world, and both show how events on the world stage shifted local economies in Africa toward exports. This tendency was intensified under colonialism, and "Colonialism Yields to Independence" shows European powers setting the rules for the scramble for Africa at the Berlin Conference (1884-1885) and Africans responding to colonialism in a variety of ways from the late 1800s through 1990. As a counterpoint to the colonialism moment, "Ethiopia Prevails over Italy" tells the inspiring story of the Ethiopian army's stunning victory over Italian invaders at Adwa in 1896. Because the last two hundred years have seen so much change in Africa, several moments on the history pathway present different aspects of this complex history.

BEST COPY AVAILABLE

WORKING IN AFRICA GALLERY

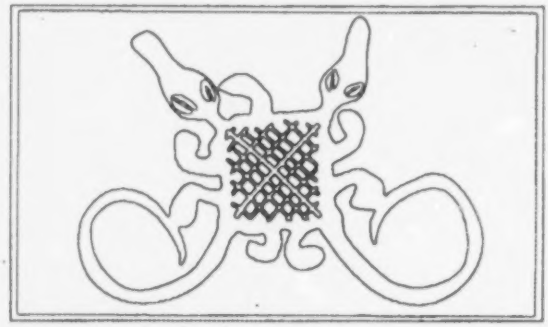
Images of contemporary work in Africa illustrate three important, long-standing technologies—metallurgy, pottery, and agriculture—that have changed the face of the continent. These play and continue to play important roles in Africa. The presentation of agriculture explores the cultural value of agricultural work through headdresses that honor *Ciwara*, the mythical antelope who taught farming to Bamana people in Mali. The headdresses are used in annual festivals to commemorate the importance of agriculture and the ideal qualities of a farmer–strength, tenacity, and grace. Similarly, the exhibition explores African rice cultivation, showing West African farmers who have cultivated a unique variety of rice (*Oryza sativa*) for over 3,000 years, experimenting to create strains that thrive on hillsides, swamps, flood plains, and coastal estuaries. In the 1700s, African rice farmers were enslaved and their expertise exploited to work rice plantations in the Americas. In addition to the presentation on metallurgy, pottery, and agriculture, a video and photo murals show the diversity of modern work in Africa.

MARKET CROSSROADS GALLERY

Rather than create a generic and timeless market as seen in many museums, this installation recreates the "31 December Makola Market" in Accra, Ghana, as it existed in 1996. Visitors meet four vendors who worked in the market at that time and hear them talk about the importance and value of their work. For example, Ernestina Quacoopome and her daughter Marjorie Botchway sell Ghana's classic blue-and-white cloth. Marjorie uses skills she learned in secretarial school to help her mother manage the business. They make a monthly contribution to a revolving credit organization and every two years receive about $5,000 to buy cloth in bulk. Women selling yams, housewares, and kola nuts each discuss their work, as a large video screen fills the gallery with the sounds and movement of the market.

WEALTH IN AFRICA GALLERY

In Africa, wealth takes many forms: money, knowledge, and connections among people. These different notions of wealth as well as the movement of goods and ideas are important concepts for understanding African cultures. A brightly colored, jumbo jet coffin used by Ga people celebrates various kinds of wealth and is a major feature of this section of the exhibit. A luxury item costing approximately $400, the coffin represents a significant expense to honor important people who have "joined the ancestors." While these coffins take many forms,



This image from an Akan gold weight from Ghana represents two crocodiles with one stomach. It alludes to a proverb: "They share the same stomach yet they fight over food."

each one reminds the family, friends, and colleagues of the accomplishments of the deceased. A successful international business person might be buried in a jumbo jet. The mother of many children might be buried in a chicken coffin, complete with many chicks. At the funeral, the coffin is carried by friends, family, and supporters through town to the cemetery for a Christian burial. The greater the number of people in the funeral procession, the greater the evidence for the deceased's "wealth in people." The procession makes real the Akan proverb: "Everyone helps carry the burden of a funeral."

LIVING IN AFRICA GALLERY

The diverse living spaces people create and inhabit in Africa tell us a great deal about their values and their daily lives. Portable nomadic houses from Somalia are contrasted with longstanding stone architecture in Zanzibar. Today in easternmost Africa about 60 percent of Somali people are nomadic herders. Central to the culture that has evolved around herding are the portable houses called *aqal*. The houses belong to women, and a Somali proverb says "A man without a wife is a man without a house." Next to the *aqal* on display stands a life-size video featuring two Somali-Americans discussing their memories of living in *aqals* and the meanings of these houses in their lives. The next installation features massive wooden doors from Zanzibar, Tanzania. In this coastal city, which dates from the 18th century, merchant families commissioned massive, intricate, hand-carved doors to display and enjoy their wealth. Many of the historic buildings in this ancient city are built from coral bricks. Rural and urban, nomadic and sedentary, these contrasts underscore the diversity of living spaces and ways of life in Africa today.

KONGO CROSSROADS

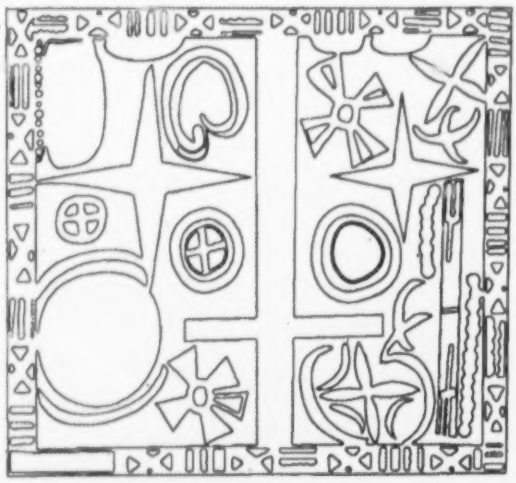
Connecting the "Living in Africa" and "Global Africa" galleries, this crossroads space focuses on important values that sustained Kongo people in Africa and the Americas. Kongo-speaking people have long lived in a region north and south of the mouth of the Congo River. Their religion, like many in Africa, revolves around venerating the ancestors. The gallery floor has a brass circle cut by a cross: This *dikenga* symbol embodies a crossroads where the living can meet the ancestors. It also represents the sun's daily movements—sunrise, noon, sunset, and night—and the soul's journey through life—birth, adulthood, death, and ancestorhood. This symbol can be seen in the cylindrical medicine pack on the belly of a female *minkisi*, a power figure used to direct the ancestors' power into solving everyday problems.

This gallery also shows Africa's connection to the rest of the world. A Kongo crucifix from the early 19th century shows Christianity's long-standing influence in Central Africa; in fact, Kongo King Afonso I converted to Christianity in 1509. Similarly, because Central Africa was the source for approximately 40% of all people enslaved in the Atlantic Slave Trade, traces of many Central African cultures, including Kongo, appear around the Americas. A Brazilian metal sculpture collected for the exhibition in 1996 clearly shows the dikenga symbol. Identified as a Kongo symbol by Brazilian followers of the African-based religion *Candomblé*, the symbol is incorporated into altar sculptures used to honor the indigenous spirits of Brazil. While the meaning of the symbol has changed somewhat, the form remains unchanged and is still used to call upon the ancestors.

GLOBAL AFRICA GALLERY

For millennia, Africans have dispersed around the world, creating a community called the African Diaspora. While the dispersion of Africans had its tragic peak in the Atlantic Slave Trade (1502-1860s), a map in this gallery shows major historical African journeys. The map begins with Hannibal leading his North African army against Rome and ends with the recent migration of Africans to Europe, Australia, and the United States.

Another installation tells of the horrors of being enslaved: visitors can hear the voices of people



The crosses and circles in this contemporary image from the Democratic Republic of Congo evoke physical and spiritual crossroads for many kiKongo-speaking people.

enslaved in the United States. Their stories were collected by the Works Progress Administration (WPA) in the 1930s, and former slaves speak of the violence, indifference, and cruelty of slavery.

For generations, scholars believed that the horrors of the Middle Passage destroyed all African culture in the enslaved. However, recent research has shown conclusively that enslaved people brought whole cultural systems with them to the Americas. One example is the Afro-Brazilian religion *Candomblé*, and the hall includes a large display about this complex tradition thriving in Brazil today. The installation introduces visitors to the African deities through objects and narratives. Quotes from a leading priestess and a young artist in the tradition convey its meaning and vitality.

The Freedom Theater includes two dramatic videos that convey stories that we could not tell through any other means. *The Atlantic Slave Trade* tells the story of the "Other Mayflower," a slave ship that brought enslaved people to Virginia in the 1720s, and a Muslim rebellion in Bahia, Brazil. Both stories focus on the ways in which enslaved people created community and resisted their oppression. *The Struggle For Freedom* presents the story of the Pan-Africanist movement's struggle and ultimate triumph over European colonialism. It also explores the commonalities between the Civil Rights Movement in the United States and the Liberation Movement in South Africa. The videos emphasize

the human dimension of these powerful stories—the struggle for freedom and self-determination.

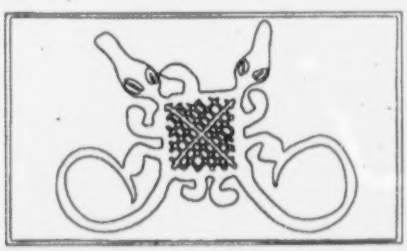
FOR TEACHER AND STUDENTS

To guarantee that *African Voices* remains fresh for years to come, the exhibition design includes three changing exhibitions within the hall. From the beginning, the *African Voices* Project staff recognized that the exhibition alone could not tell the whole story of Africa. Therefore, public programming and outreach efforts complement the exhibition. Through films, lectures, hands-on workshops, teacher training opportunities, performances, web sites, and a smaller poster version of the exhibit, the museum is bringing the rich resources of the project to a broad audience. Through these multiple opportunities, Americans throughout the country will be able to meet Africans and people of African descent to learn about their lives, their cultures, and their histories.

◦ African Voices Web Site: This web site, already the subject of much praise, combines a great deal of content with a very interactive design. The site reproduces most of the content of the exhibition: A "History" tab leads to the stories on the history pathway, and the "Themes" tab opens onto the galleries presented here. Visit the site at http://mnh.si.edu/africanvoices

◦ Curriculum Materials: Public school teachers are working with exhibit developers to design educational materials for grades 6-12.

Michael Atwood Mason is an anthropologist and exhibit developer at the Smithsonian's National Museum of Natural History. He served as co-curator on the African Voices Project team. His research focuses on African-based religions in Cuba and Brazil.



NEW TEACHING PUBLICATION

History Beneath the Sea: Nautical Archaeology in the Classroom. Edited by KC Smith and Amy Douglass. Society for American Archaeology. 28 pp. 2001. $4.95 for SAA members, $5.95 for non-members.

History Beneath the Sea is a new teaching module that explores the role watercraft played in the global spread of people, products, ideas, and animal and plant life through the research of nautical archaeologists. Nautical archaeology is the study of "material remains, technologies, and traditions relating to ships and the seas—from wrecks and vessel construction to lighthouses, trade routes, and coastal communities."

The volume provides an overview of nautical archaeology, followed by short articles about four notable shipwrecks, including the Civil War submarine the *H.L. Hunley*, located off the coast of Charleston, South Carolina in 1995. One-page readings, "Dive into Details," on such topics as artifact conservation and the *Titantic*, are designed to help students improve literacy skills through the use of historical content.

History Beneath the Sea is a valuable educational resource for secondary-level educators who teach history, social studies, and science. Classroom activities, including a strategy for conducting a simulated excavation; recommended books and teaching manuals; a glossary; and a list of related organizations and web sites round out this introduction to nautical archaeology for educators and students.

The Society for American Archaeology (SAA), Public Education Committee prepared this *Teaching with Archaeology* education module. To order *History Beneath the Sea*, contact:
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AnthroNotes offers in-depth articles on current anthropological research, teaching activities, and reviews of new resources. *AnthroNotes* was originally part of the George Washington University/Smithsonian Institution Anthropology for Teachers Program funded by the National Science Foundation. It is published free-of-charge twice a year.

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1. To more widely disseminate original, recent research in anthropology in order to help readers stay current in the field;
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